UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,858	12/14/2001	Karen Koch	6225.200-US	7430

7590 11/25/2003

EXAMINER
HUI, SAN MING R

Reza Green, Esq.
Novo Nordisk of North America, Inc.
Suite 6400
405 Lexington Avenue
New York, NY 10174-6401

ART UNIT	PAPER NUMBER
1617	

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/016,858	KOCH ET AL.	
	Examiner	Art Unit	
	San-ming Hui	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a) In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *35,36,40,43,45-47 and 49-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *35, 36, 40, 43, 45-47, and 49-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Applicant's amendments filed October 17, 2003 have been entered.

Claims 35, 36, 40, 43, 45-47, and 49-53 are pending.

The outstanding rejections under 35 USC 112 first and second paragraph are withdrawn in view of Applicant's amendments filed October 17, 2003.

The outstanding rejection under 35 USC 103(a) is withdrawn upon reconsideration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 35, 36, 40, 43, 45-47, and 49-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meignant (US Patent 6,060,077) in view of Mettler and Olsen (reference of record) and Vagifem monograph (reference of record).

Meignant teaches the employment of low dose 17-β-estradiol, i.e., 5μg or 2.5μg, locally to treat atrophic vaginitis (See col. 4, lines 27-36; also col. 6, lines 38-54). Meignant teaches the dosage frequency can be adjusted to avoid the systemic effects (See col. 4, lines 23-25). Please note that the lowering of the vaginal pH is considered as a result from the exact same active method steps herein (See McCane, reference of record).

Meignant does not expressly teach the dosage form of the medicament as tablet that contains 53.7mg hypromellose, about 17.9mg lactose monohydrate, about 8 mg maize starch, and about 0.4 mg magnesium stearate. Meignant does not expressly teach the tablet is coated with a film consisting of about 0.5mg hypromellose and about 0.06 mg Macrogel 6000. Meignant does not expressly teach estradiol is administered once or twice weekly.

Mettler and Olsen teaches a method of treating atrophic vaginitis by vaginally administering 25μg tablets of 17β-estradiol (Vagifem®) to post-menopausal women once-weekly or twice weekly for more than 3 months (See page 23, abstract; page 24 and 25, Subjects and Methods Section). Mettler and Olsen also teaches that the 17β-estradiol treatment is effective in relieving the symptoms of atrophic vaginitis such as vaginal dryness (See page 28, second paragraph, also Table 2).

Vagifem monograph teaches that the inert excipient of Vagifem tablet containing hydroxypropyl methylcellulose (hypromellose), lactose monohydrate, maize starch, and magnesium stearate (page 1, col. 1). Vagifem monograph also teaches that the film coating of the tablet containing hydroxypropyl methylcellulose (hypromellose) and polyethylene glycol (Macrogel 6000).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ estradiol, in a tablet dosage form containing 53.7mg hypromellose, about 17.9mg lactose monohydrate, about 8 mg maize starch, and about 0.4 mg magnesium stearate and coated with a film consisting of about 0.5mg hypromellose and about 0.06 mg Macrogel 6000, to treat atrophic vaginitis. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the dosage frequency to the herein claimed dosage frequency.

One of ordinary skill in the art would have been motivated to employ estradiol, in a tablet dosage form containing 53.7mg hypromellose, about 17.9mg lactose monohydrate, about 8 mg maize starch, and about 0.4 mg magnesium stearate and coated with a film consisting of about 0.5mg hypromellose and about 0.06 mg Macrogel 6000, to treat atrophic vaginitis. Vagifem is known to be useful in treating atrophic vaginitis, and the herein claimed dosage of estradiol is also known to be effective in treating atrophic vaginitis. Possessing the teachings of the cited prior art, one of ordinary skill in the art would have been reasonably expected to employ Vagifem tablet, in a lower dose to avoid systemic side effects, in a method of treating atrophic vaginitis.

One of ordinary skill in the art would have been motivated to adjust the dosage frequency to the herein claimed dosage frequency. The optimization of result effect parameters (e.g., dosage range, dosing regimens to avoid side effects) is obvious as being within the skill of the artisan.

Response to Arguments

Applicant's arguments with respect to claims 35, 36, 40, 43, 45-47, and 49-53 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to San-ming Hui whose telephone number is (703) 305-1002. The examiner can normally be reached on Mon 9:00 to 1:00, Tu - Fri from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, PhD., can be reached on (703) 305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

San-ming Hui
Patent Examiner
Art Unit 1617

SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER

11/24/03